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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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Qiang Cao

CAO 16-4-3

9434

7590

01/24/2006

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EXAMINER

PARK, JUNG H

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                   |  |
|------------------------------|--------------------------------------|-----------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/936,103 | <b>Applicant(s)</b><br>CAO ET AL. |  |
|                              | <b>Examiner</b><br>Jung Park         | <b>Art Unit</b><br>2661           |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawing Objections***

1. The drawings are objected to because:

In figure 7, step 718, the "DFC1" should be changed to -- DFCI --.

In figure 7, the step "820" should be changed to -- 720 -- (see page 16, line 15 in the specification).

### ***Abstract Objections***

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains.

The abstract reads like the original claim 1.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the transport format set". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art ("APR") in view of Felix et al. (U.S. 6,233,231, "Felix").

Regarding claim 1, APR teaches, "a method of communicating a selected channelization codes from a base station to user terminals for use downlink comprising: -transmitting to each user terminal (*allocating codes for transmitting to downlink (user terminal) 202 fig.2; pg.6, ln.3*) a respective set of nodes of a code tree (*upper tree branch comprising of RU1-U10 and RU2-U20 fig.3*) comprising a defined path of the tree for the user (*U10-RU1 for user 1 and U20-RU2 for user 2 fig.3*); and

"a set of nodes for a first user (*U10-RU1 fig.3*) has a member in common (*RU1, RU2 in C<sub>2,1</sub> fig.3*) with a set of nodes for a second user (*U20-RU2 fig.3*) such that their respective paths cross (*the reserved RU1 and RU2 paths cross*)."

APR lacks what Felix teaches, "transmitting to each terminal a respective identifier identifying one of the set of nodes to be used (*col.5, 36-39 where ID is used for a specific branch of the code tree to identify an allocation of the set of nodes*)."

Therefore, it would have been obvious to one of ordinary skill in the art at the time of application's invention to include the code identifier taught by Felix to the code allocation method disclosed by APR since one would be motivated to apply the code

identifier method in order to identify a specific branch of the code tree allocated for a user (see col.5, ln.36-41).

Regarding claim 2, APR is silent on when the set of nodes are transmitted to the user. However, it is inherent that a code allocation unit allocates one of OVSF codes to a radio access connection *session* for use as a channelization code. Without radio access bearer establishment between the user and a base station, the set of nodes are not transmitted to the user.

Regarding claim 4, APR lack what Felix teaches, "the identifier is transmitted in a data packet (col.5, ln.26 where the data bits are equivalent to a data packet).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include the identifier in a data packet since one would be motivated to include the 6-bit ID in a data packet in order to identify an allocation of the code tree for a user.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over APR in view of Felix and further in view of UTRAN (UMTS XX.25, "the UMTS").

Regarding claim 3, APR-Felix lack what the UMTS teaches, "the set of nodes are included in a transport format set (pg.9, ln.53-54 where...transport format set)." The UMTS teaches that it is old and well known in the wireless network art to transmit the set of nodes by including in a transport format set.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply the transport method taught by the UMTS to the

code allocation method disclosed by APR-Felix in order to provide a variable rate DCH in the Transport Format Set (that is, one Transport Format for each rate).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over APR in view of Felix and further in view of the UMTS.

Regarding claim 5, APR-Felix lack what the UMTS teaches, "the identifier is transmitted in transport format combination identifier (pg.9, ln.50-51)." The UMTS teaches that it is old and well known in the wireless network art to transmit the set of nodes by including in a transport format set.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to transmit the identifier in a transport format combination identifier of a dedicated physical control channel since one would be motivated to include an identifier into a TFCI in order to know the current transport formation combination.

### ***Response to Amendment***

9. Applicant's arguments filed on August 17, 2005 have been fully considered, but they are not persuasive. The applicant argues that , by adding new claim limitations in claim 1, "a set of nodes for a first user has a member in common with a set of nodes for a second user such that their respective paths cross" is not disclosed by Felix, The Felix fails to teach the feature described in above. However, the admitted prior art (APR) teaches that a set of nodes for a first user as shown in U10-RU1 fig.3 has a member in common (RU1, RU2 in C<sub>2,1</sub> fig.3) with a set of nodes for a second user as shown in U20-RU2 fig.3

such that their respective paths, that is, the reserved RU1 and RU2 pats cross.

Therefore, this claim is rejected in view of the new ground of rejection.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

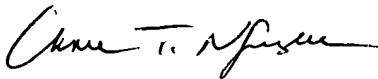
### ***Contact Information***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 7:15-4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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